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| Examiner-Initiated Interview Summary | Application No. 09/497,993 | Applicant(s) BARBER ET AL. | |
| | Examiner A. Dexter Tugbang | Art Unit 3729 | |

All Participants:

 (1) A. Dexter Tugbang.

 (2) Richard J. Botos, for Applicant(s).
Status of Application: ____

(3) ____

(4) ____

Date of Interview: 22 June 2007
Time: ____

Type of Interview:
☒ Telephonic

☐ Video Conference

☐ Personal (Copy given to: ☐ Applicant ☐ Applicant's representative) .

 Exhibit Shown or Demonstrated: ☐ Yes ☒ No

If Yes, provide a brief description:

Part I.

Rejection(s) discussed:

Potential 102b rejection of at least Claims 1 and 13 utilizing Kline et al (cited below)

Claims discussed:

1, 10-13, 15 and 16

Prior art documents discussed:

Kline et al (U. S. Patent 4,556,812)
Part II.

SUBSTANCE OF INTERVIEW DESCRIBING THE GENERAL NATURE OF WHAT WAS DISCUSSED:

See Continuation Sheet
Part III.
☒ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview directly resulted in the allowance of the application. The examiner will provide a written summary of the substance of the interview in the Notice of Allowability.

☐ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview did not result in resolution of all issues. A brief summary by the examiner appears in Part II above.


A. DEXTER TUGBANG
PRIMARY EXAMINER

(Examiner/SPE Signature)

(Applicant/Applicant's Representative Signature – if appropriate)

Continuation of Substance of Interview including description of the general nature of what was discussed:

The examiner expressed to applicant(s) that the amendment and remarks filed on April 26, 2007 overcame the rejections applied in the last Office Action (Final Rejection, mailed on November 20, 2006), particularly overcoming the combination of the AAPA, Fujii et al, and EerNisse et al. However, the claims did not overcome the reference to Kline.

The examiner urged that Kline disclosed a method of making an acoustic resonator that includes depositing a first metal film (e.g. 14) directly on a substrate (e.g. 10) to form an electrode region; depositing a piezoelectric film (e.g. 16) on the electrode region; depositing a second metal film (e.g. 18) on the piezoelectric layer; patterning the second metal film on the piezoelectric layer; removing the piezoelectric material from a region of the piezoelectric layer underneath a spaced apart region between the spaced apart electrodes by a selective etching process of forming a cavity (e.g. 25) where this removal limits lateral propagation losses (e.g. frequency of deflection or vibration) to un-etched regions of the acoustic resonator device, and then finally patterning of the first metal. The order of the steps of Kline occurs exactly as recited above (col. 3, lines 39+).

What Kline does not teach is that the step of depositing the piezoelectric material occurs most notably, AFTER patterning of the first metal film. Kline patterns the first metal film at the very end as the last step by forming the cavity (e.g. 25), not BEFORE the piezoelectric film is deposited.

The examiner requested that this feature be emphasized in each of Claims 1 and 13 as this would overcome the prior art. Claims 1 and 13 have been amended to stress that the step of depositing the piezoelectric material occur after patterning of the first metal film. Remaining changes to each of Claims 1, 10 and 13 were necessary to correct mere informalities with the language and grammar.

The applicant(s) also discussed a feature of the invention that would include transferring the pattern of the second metal film into the underlying piezoelectric material by a selective etching process to limit lateral propagation losses to regions of the acoustic resonator device that do not directly underlie the patterned second metal film. The examiner urged that this feature overcomes the reference to Kline and appears to overcome the art of record. However, the examiner further noted that this feature was not presented originally in the claims and this would entail a completely different and new search. The applicant(s) noted that they may file a continuation application for coverage on this feature.

The applicant(s) have agreed to all of the above changes, which are provided in the attached Examiner's Amendment and now places the application in condition for allowance.